RTTY

NEWS OF AMATEUR RTTY

JUNE, 1962
30 Cents
Vol. 10, No. 6

The magnificent Portland Memorial Coliseum will house the 12th National ARRL Convention, September 1, 2 and 3.

RTTY, Inc.
372 WEST WARREN WAY
Arcadia, California
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HORSE TRADES

This page of the Bulletin is for use of amateurs who have RTTY EQUIPMENT FOR SALE OR TRADE and those looking for equipment to buy or trade It is o free service and moy be the meons of getting someone on the air

FOR SALE: Model 14 typing reperf, no keyboard, excellent condx. $65 00 Wanted. Hallicrafters DD1 Dual Diversity receiver, built about 1938, must be in good shape, W1LWV, 99 Water St, Millinocket, Maine.

FOR SALE: ½" felt for base of Teletype machines, $1.50 each. K6KHS, 13833 San Antonio, Norwalk, Calif.

FOR SALE: Model 14 RECEIVE ONLY typing reperfs with sync motors, Comm. type, refinished covers, with or without end-of-line, pulling or holding magnets FPR-5-$80 00 FPR-21-$105.00. Model 14 TDs with sync or governed motors, refinsihed covers, and rwkd. With sync motor $95 00 Governed motor—$80.00. W6YJG, 1223 Pine St., Santa Monica, Calif.

FOR SALE: Surplus Teletype gear of all kinds. Free Flyer, MDC Industries, 923 West Schiller St., Phila. 40, Pa.

FOR SALE: Model 14 typing reperfs $39.00 Model RA-87 power supplies $9 00. Model FGC-1 TUs complete in cabinets $150.00. 11/16" reperf tape, 40 rolls for $8.00. W5LCU c/o Industrial Electronis, Inc., P.O. Box 174, Harlingen, Texas.

FOR SALE: Model 14 TD, grey-green, 60 wpm Sync motor, with base in excellent condx. $100 00 K2MKQ, 257 Washington Drive, Pennsville, New Jersey.

12th NATIONAL ARRL CONVENTION

Finalizing of plans for the September 1, 2 and 3 convention of the National American Radio Relay League is now underway, reports Stan Loye, K7BHI, executive chairman of the convention committee.

Portland, Orgon's new $9-million Memorial Coliseum will be the site for this 12th National convention where the program will cover everything from mobile hunts to exhibits of latest equipment.

Included in the program, also, are technical talks on S S B, R.T.T.Y., antenna developments, high voltage silicon rectifiers, and a wide variety of other subjects. Convention — goers will participate in special interest breakfasts, round table discussions, swap, shop, a banquet, dance, city tours, and special ceremonies. Families of hams novices and children will all find programs of special interest.

One of the convention highlights will be the appearance of a new Navy radar picket ship. The ship will be berthed adjacent to the convention hall so delegates can watch Naval communications in action.

Rear Admiral Bernard F. Roeder, Director of Naval Communications, will be the principal speaker at the final banquet, where special awards and ceremonies will be presented.

Advance registration fee — applicable before July 15 — has been set at $4.75 for amateur and $2.75 for non-license holders. After July 15, the amateur fee will be $5.75 and the non-license holder fee, $3. The registration fee covers admission to all technical sessions, swap shop, exhibit hall, dance, official business sessions, participation in prize activity and other convention exhibits.

Meal and the final banquet tickets are not included in registration. Tickets for individual meals may be purchased on the basis of attendance, and a cafeteria will be operating in the Coliseum for snacks.

"This Amateur Convention will be worthwhile as well as easy on the pocketbook," promises Loye. "We are scheduling something for every possible interest within the amateur radio field and the registration fee is very modest. The beautiful, new, air-conditioned Memorial Coliseum will handle a lot of people — and we hope to keep the place humming."

Oregon hams are suggesting that convention delegates combine their visit to Portland with a trip to Century 21 World's Fair Seattle site of the big 1962 event, is only 30 minutes from Portland by air and an easy 3-1/2 hour drive by car. Early reservations for those planning to make such a combination trip are a must.

Accommodations for the convention will be arranged at nearby hotels and motels. All questions on the convention, hotel reservations, and advance registration for the event should be addressed to ARRL National Convention, PO Box 1335, Portland 7, Oregon.

HOOVER JR. HEADS 'HAM' RADIO LEAGUE

HARTFORD, Conn. — Hebert Hoover Jr. of San Marino, Cal., was elected president of the American Radio Relay League Saturday at the league's annual board of directors meeting.

The league co-ordinates activities of amateur radio operators in the United States and Canada. Its headquarters is in West Hartford.

Hoover, son of the former President, is a consulting engineer with offices in Los Angeles. He also is a director of several business firms and a trustee of several non-profit organizations.

He has been interested in amateur radio since 1915 and a licensed "ham" since 1918. He now holds call letters W6ZH.

Other officers elected include Wayland M. Grove of Odessa, Tex., first vice president.

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For 'RTTY' Informat on
W6DEO W6CG W6AEE

ARRL SOUTHWESTERN DIVISION CONVENTION

DISNEYLAND HOTEL — JUNE 1-2-3, 1962

THE CONVENTION TO TOP ALL CONVENTONS, right in the heart of the number one play spot of the world! DISNEYLAND, U.S.A. For the first time a convention with FUN FOR THE WHOLE FAMILY. Without a doubt the 1962 Southwestern Division A.R.R.L. Convention will go down in "Ham" history as one of the best. As a good start for the first time, we will have our own QUEEN! Yep, a real genuine MISS AMATEUR RADIO OF 1962. A Queen with an Amateur license. What more can you want? But read on.

The Banquet Speakers will keep you sitting on the edge of your chair as well as bringing you up-to-date on everything. Prizes, prizes, thousands and thousands of dollars worth, with the big ones at the Banquet — and to top this — prize drawings at every session and on every hour — another fabulous idea. You need not be present to win. Prize winners will be posted throughout the entire convention and if not claimed, the prizes will be mailed.

Want more! The Bell Telephone Company will have a session on the latest data concerning "Space Communications". Other technical sessions will be — Transistors, YL Working Sessions, Power Supplies, Antenna Forums, VHF, RTTY, DX, Single Side Band, Novice Code Contest, RACES, TVI, MARS, FCC Exams, Home Brew Contest, Transmitter Hunts, Net Control Sessions, QSL Contest — and much more.

Nowhere can you get so much information and have so much fun in so short a time.

Stephen Jamszewski, W9COW died April 3rd. Steven was well known both on amateur frequencies, and was advertising director for the Teletype Corporation. He will be missed by all the RTTY gang.—K9QCK, Dept. 9321 Teletype Corp.

"Merrill, W6AEE— I feel that I know you personally and shall miss communications friendships, by proxy. Amateur radio creates a bond in a world of its own, You will find Reed K5HSW most promising in this area. Sincerely yours, Mary M. Burkett, (Wife of Amos W5JBW deceased)

A small group off RTTYers meeting at the Fishermans pier 65 in Oakland May 1st. Occasion was visit of W6AEE. Twelve NCARTS member were in attendance, which was excellent considering short notice. TUs, gears for FRXDs and many subjects were discussed. Congrats go to K6ZBL for a very pleasant evening. An interesting side light, Stan K6ESZ had arranged for a Gonset IV to be placed in W6AEEs hotel room, and after returning to the hotel, contact was made with several Bay area RTTYers (on PHONE!)

It occurred to me that some of our RTTYers who lack a calibrated audio oscillator for setting their mark and space might wish to calibrate their TU with a piano. Although there is no key that exactly corresponds to 2125 cycles and 2975 cycles C and F sharp in the third octave above middle C provides a tone source of 2112 and 3004 cycles.

Users of Central Electronics exciters using 9 MC crystals can correct their upside down shift on 80 meters by switching in additional capacitance across the VFO oscillator tank circuit for RTTY operation. This changes the VFO frequency 5380 KCS to 3620 KCS and the 9 mc crystal will not be used. The VFO will automatically work straight through and the carrier cannot be suppressed. It may also be necessary to re-resonate the VFO amplifier plate circuit.

Sincerely yours,

Don Middleton WONIT—
WOENA
Colorado, SCM

Inclosed here-in is the information concerning the MONTANA RTTY CERTIFICATE" that is being sponsored through the co-operative efforts of K7BON Richard Stark, W7RZY Harry A. Roylance, and W7MBV W. R. Patte. We would appreciate this information being included in your magazine.

The following is the information required to obtain one of these Certificates.

Award: MONTANA RTTY CERTIFICATE

Awarded by: Southern Montana Amateur Radio Teleprinters

(SMART's)

Custodian W R Patte, W7MBV, Ryegate Montana

Requirements Work any three (3) Amateur RTTY Stations in Montana No Band or Time Limitations

Charge $ 50

Application Send Certified List showing the three (3) Montana RTTY Stations that you have worked. Include QSL Card Information The list must be Certified by either, two(2) Valid Licensed Amateurs or by an Officer of a Recognized Radio Club

Thanking you, in advance, for your consideration of placing the above information in your Magazine, I remain

Sincerely,
W R Patte W7MBV
Ryegate, Montana

My one-man effort to encourage the use of the generic term "telotype" except in those few instances where the registered trade-mark is to be correctly used has been a 100% failure I wrote Byron Kretzman quite some time back, yet in his new RTTY Handbook he goes on at some length about the registered trade-mark, with the concluding mis-statement that machines are either Teletype Corporation units or they are teleprinters. Nonsense and fiddle-de-fiddle.

Telotype is in the unabridged G&C Merriam word book, and has been for a long time It is a "printing telegraph", so why in Heaven's sake don't we have telotype contacts, telotype converters, telotype clubs, etc? I am very proud of my fine Kleinschmidt Model TT-98 telotype page printer and of the Model TT-76A Kleinschmidt telotype tape unit.

Sincerely,
Ben W9UE

While reading the December issue of RTTY I came across the article 'How Am I Printing OM?" I should like to give my wholehearted support to everything Norm Brooks expressed in his article with the exception of one important thing I completely disagree with his statement "Better yet, modify the machine so it doesn't unshift on space"

I have long felt that the unshift on space is a very desirable and even necessary feature for use with amateur radioteletype It can readily be seen that this feature is desirable when receiving a signal that is not solid copy. If the machine goes into upper case due to garbling and does not have unshift on space, it will stay there until the next letters character is received, or until the operator unshifts the machine manually From this it can be seen that unshift on space would avoid this trouble This is especially true since nearly 90 percent of amateur operation is done in lower case.

Personally, I class unshift on space as much of a necessity as is automatic carriage return and line feed This enables the receiving operator to go about his business while receiving RTTY without the worry of pile-ups at the end of the line or many words in upper case

I believe that many RTTY'ers are missing out on this advantage when they remove unshift or space or have not had it before It is a very worthwhile addition to a machine that does not have it

I am not suggesting that we rely upon unshift on space to return the machine to lower case after sending something in upper case As Norm pointed out the operator should send the letters key anyway not only to make sure but also to accomodate the machines that might not have this feature.

Keep up the good work and lets see more technical articles

73—Keith, W8SDZ

This is WBR Miami, Florida TSMT on the FLWG Freqs CARMET BCST
3235 CC 2030 TO 1400Z
5937 KC CONTUS
8130 KC CONTUS
10950 KC CONTUS
14395 KC CONTUS
16440 KC 1155 TO 0500Z

TRANSISTOR OSCILLATOR FOR FSK USED ON COLLINS "S" LINE

by W4MGT

Many RTTY operators have the Collins "S" line equipment and here is the method used at my station, W4MGT. It uses GE transistor type 2N107 and the Slyvania 1N100 diode.

Resistors are half watt Capacitors are paper or MYLAR Capacitor C2, 1-Mfd must be high quality very low leakage

NOTES

1. Diode markings actual may not correspond to markings on actual unit Current flows through when keyboard is open.

2 Pull V 13 (6AL5) to disable ALC circuit as it is not compatible with FSK type signals.

3 "S" Line grid current should be adjusted at least to full scale (1MA) on the meter. This will wash out any differences in MARK*SPACE tone input level These are minor with a little jugghng of the slug in L-1.

4 Pull out mike plug on front or it will kill the phone patch input on the back of transmitter.

5 All plugs and receptacles are same as used on "S" line.

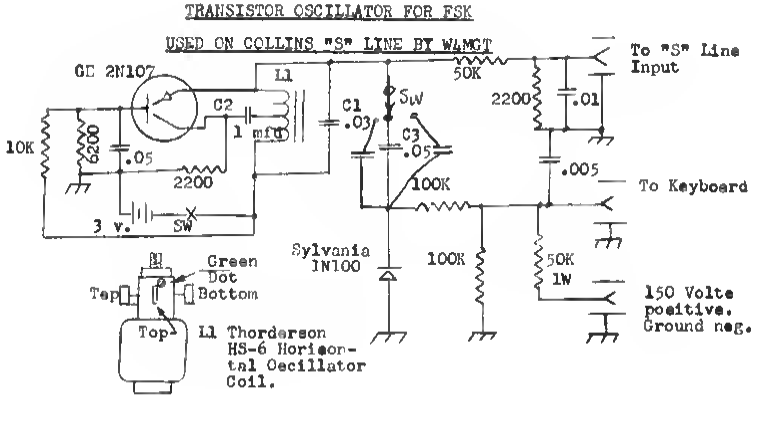
6 Used on USB on Collins "S" Line MARK 2125 cps, *SPACE 1275 cps*.

7. Will also work "Transceive" and S-Line of KWM-2, BUT, toroids in TU, must be tuned to same frequencies (2125 and 1275 cps), this keeps tuning of receiver on local signal to permit copying off the air at the transmitting station

8. Input audio band pass filter, if used, must pass 2125 and 1275 Filter can usually be left out — the 2KC receiver filter does a satisfactory job in most instances.

The capacitor (C3) is the SPACING capacitor and replaced with a four pole single throw switch to provide for different (narrower) shifts C3 starts at 05mfd and gets smaller as space tone moves closer to mark for narrow shift

Henry, W4MCT, Lexington, Kentucky
Ed's Note
Henry has been worked from the west coast many times, and his signal is very stable, and tests made would indicate a marked improvement with the narrower shift on eighty meters.



FROM AC5DS, CANAL ZONE

One of the best uses for radio teleprinter operation is traffic handling. I feel that the growing number of RTTY'ers could and should be organized into a national traffic handling system. For personal reasons I am unable to do much to assist in the organization of such a group, but look forward to being able to participate in such an organization at a future date. A national RTTY traffic handling organization would enable the RTTY'ers to let his equipment better serve the public, and would be invaluable in a national emergency.

Although I am unable to assist in the actual organization of such a group I do feel that I can contribute something to the cause— the proposal to the RTTY'ers of a message format most conducive to RTTY operation.

At present the only standard amateur message format is that of the ARRL. Also, much of the RTTY group has been exposed to the MARS format in that so much of the teletypewriter equipment is being furnished by the MARS program these days.

In my opinion the ARRL format is very clumsy for RTTY operations for the following reasons:

1. Information in preamble is arranged across the page making for difficult preparation of tape.

2. By spreading the preamble across the page many spacing functions are required lengthening time of transmission and increasing opportunity for garbles (and wasting tape).

3. No provisions are included for assigning a message identifier of relaying stations, a necessary item for efficient servicing of relayed messages.

4. No standard method of repeating unusual groups to insure correct receipt of message.

Also, no amateur standards have been established for machine functions such as spacing between parts of a message, paging of long mesages, etc.

Consequently, I wish to propose a message format for the RTTY'ers keeping the following points in mind,

1. Not to delete any information presently contained in the ARRL format.

2. Not to deviate so far from the ARRL format as to obliterate the significance of the preamble information, as the messages prepared in this format for RTTY operation may have to be converted back to ARRL format when refiled out of RTTY Channels.

3. To include provisions to defeat the above mentioned short-comings of the ARRL format.

4. To reply upon military (MARS) format in cases where no amateur standards have been established. (The MARS members will appreciate this.)

The following is an example of proposed message format. For explanation purposes a line number will be assigned to each line.

W9ABC DE W2XYZOO7K2USA213K3CIF-O32KZ5DS OI — Line 1
DE KZ5DS O1 Ft Clayton Cy — Line 2
O613OOZ March 62 — Line 3
FM John Jones, Balboa CZ — Line 4
To Bill Jones — Line 5
123 Main St
Centerville Illinois
Tel CE 56034
GR 10 — Line 6
BT — Line 7
How are you? Will sea you June 10th SGD John — Line 8
BT — Line 9
CFN 123 CE 56034 10th — Line 10
C WA Will See — (Optional) Line 11
061325Z — (Optional) Line 12

EXPLANATION

Line 1-Routing line indicates all stations and their transmit numbers in order of relay. KZ5DS sent this message to K3GIF who relayed it as his 032 to K2USA—etc. For W9ABC to relay to another station he must place his call sign and transmit number ahead of W2XYZ. When using tape notice that no changes are required as received prior to relay. It is recommended to place five letter functions between the "DE" and your call sign when adding your callsign and transmit number to the routing line when preparing the message for relay. This will make it easier for the next station to place the tape into the TD when relaying the message again.

Line 2— This line could be called the "DE" line. This is the station of origin (and his transmit number) and the place of origin.

Line 3— Date time group, the first two digits are the date of month, the last four digits are the time and the "Z" indicates GMT. This could be called the date and time of origination.

Line 4— The name and location of originator.

Line 5— The addressee with as complete an address as necessary.

Line 6— Croup count. This is the number of groups between the "breaks" to include the signature, but not to include punctuations unless the punctuations are spelled out. (The ARRL check does not include signature, and group count must be changed accordingly when refiling from one format to the other.)

Line 7— The "Break", all between the "Breaks" is considered text.

Line 8— Text.

Line 9— The "break", see line 7.

Line 10— The confirmation line, all unusual groups of the preamble between the date time group and the group count and in the text are repeated in the order that they appear at botom of each page.

Line 11— Correction line, this is optional "C" followed by any corrections in the order the mistakes appear may be placed on this line. (At the bottom of each page.)

Line 12— Filing time this is optional but may be used if the station of origin desires to make a distinction between the time of origination and the time he received the message for transmission. This is valuable if the station is serving another service such as a disaster control center. The date time group is the time the originator releases the message for transmission and the filing time the station actually receives the message for transmission.

Because there are differences between machine shifting functions the following rules will prevent errors in copy of the above format.

1. Each transmission should start with ten letters, two carriage returns and one line feed.

2. Line 2 should start with five spacing functions, two carriage returns and one line feed.

3. Unless otherwise stated, each line will end with two carriage returns and one line feed.

4. Figures key will be used in shifting to figures. If there is a space(s) between groups of figures each separate group of figures should be preceeded with the figures key.

5. Each page of a message should end with two carriage returns and eight line feeds.

6. The end of each transmission should terminate with two carriage returns and eight line feeds.

Long messages should be paged. If the text can be gotten onto twelve lines or less don't go to a second page. If not place ten lines of text on the first page and twenty on subsequent pages. The last page of a multiple page message should not be more than twenty lines of text. Additional pages should be identified by placing the page number followed by the call sign and transmit number of the station of origin on the first line of the page. If the example message was more than one page the second page would have started—

Page Two KZ5DS 01
(Up to twenty lines of text)

I sincerely hope to see a national RTTY traffic handling organization in the near future. Before such an organization can get off the ground a good teletypewriter message format is required. I believe that the one I have proposed would fill the bill. It is understood that there are many more details that would have to be ironed out format-wised but this is a start in the right direction. So what do you all think?????

SGD KZ5DS

BT
14/1335Z

AUTOMATIC CARRIAGE RETURN AND LINE FEED

1. Remove the three (3) screws holding the comb to the bottom of the frame casting and carefully remove the comb

2 Place the function lever and crossbar assembly in position #6 and attach spring No 74705 to the function lever

3 Replace the comb, being careful not to bind the push rod of the alarm bell Use caution at this time and do not try to rush, as the push rods and latch bars must go into the proper slot and work free To make sure the alarm push rod does not bind, move the hammer arm of the bell to its normal position

4 Rotate the main shaft until the function levers are fully depressed

5 The crossbar should now be free and not pressing against the line feed push rod or the carriage latch bar If it is not free a slight adjustment must be made by twisting the narrow section to the left of the function lever. This is done by using two pair of pliers so that you do not damage the function lever

6. Again rotate the main shaft and check that the knife blade on the bail engages the line feed push rod and trips the carriage return latch bar If the carriage return latch bar does not trip check that you have the correct spring If the line feed push rod does not engage the blade of the bail carefully adjust the left end of the blade until satisfactory engagement is accomplished

Note To lower the blade first loosen the screw on the right and then snug it up so that the bar can turn but is not loose now loosen the screw on the left end of the bar until it can be moved with a slight pressure After the blade is properly adjusted be sure to tighten both screws

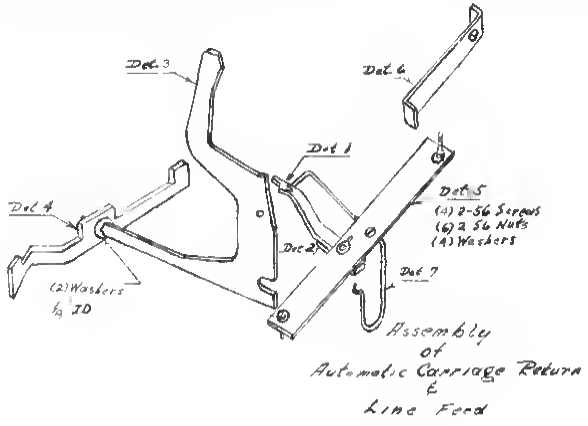
7 Assemble the trip mechanism using holes # 5 and # 10 of the spring retaining bar, hook the return spring in the large hole in the offset of the bar When tightening the two nuts which hold the assembly in place be sure that the slide is free

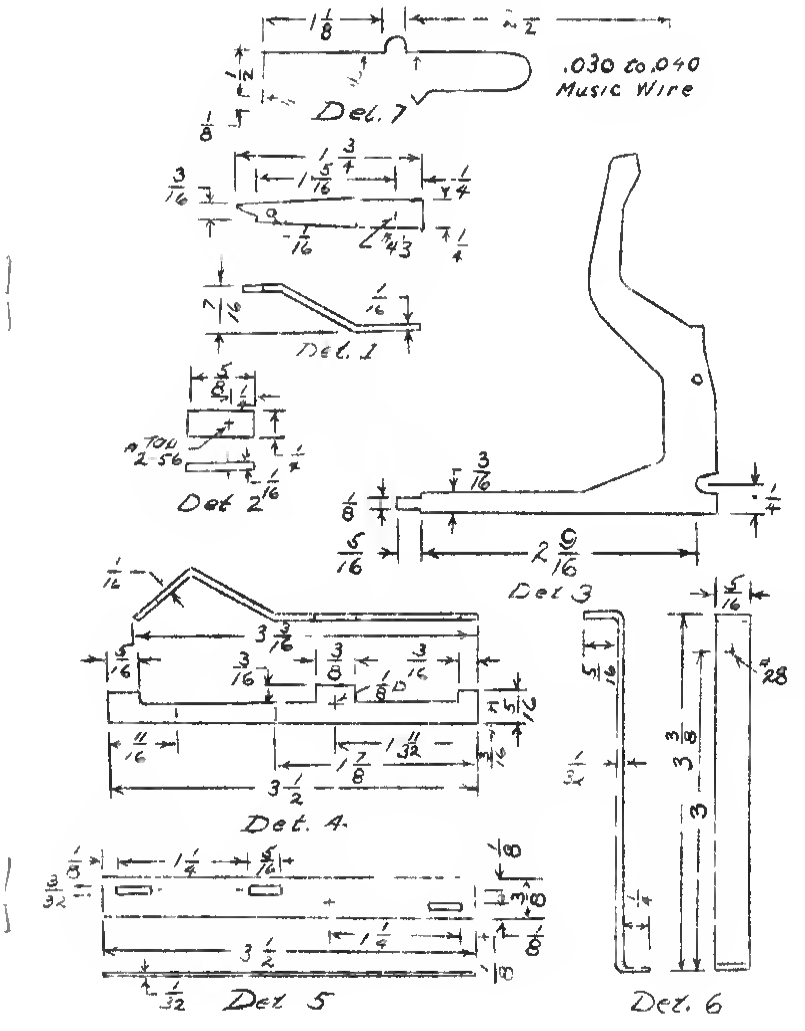
8 Rotate the main shaft again through one revolution and check that the function lever locks out when the slide is in the retricted position If not make sure the lock out lever passes in front of the function lever. If it does pass in front of the lever, but does not lock out then it will be necessary to remove the assembly and straighten out the lock out lever a slight amount A slight twist in the crossbar as in step # 5 may be sufficient

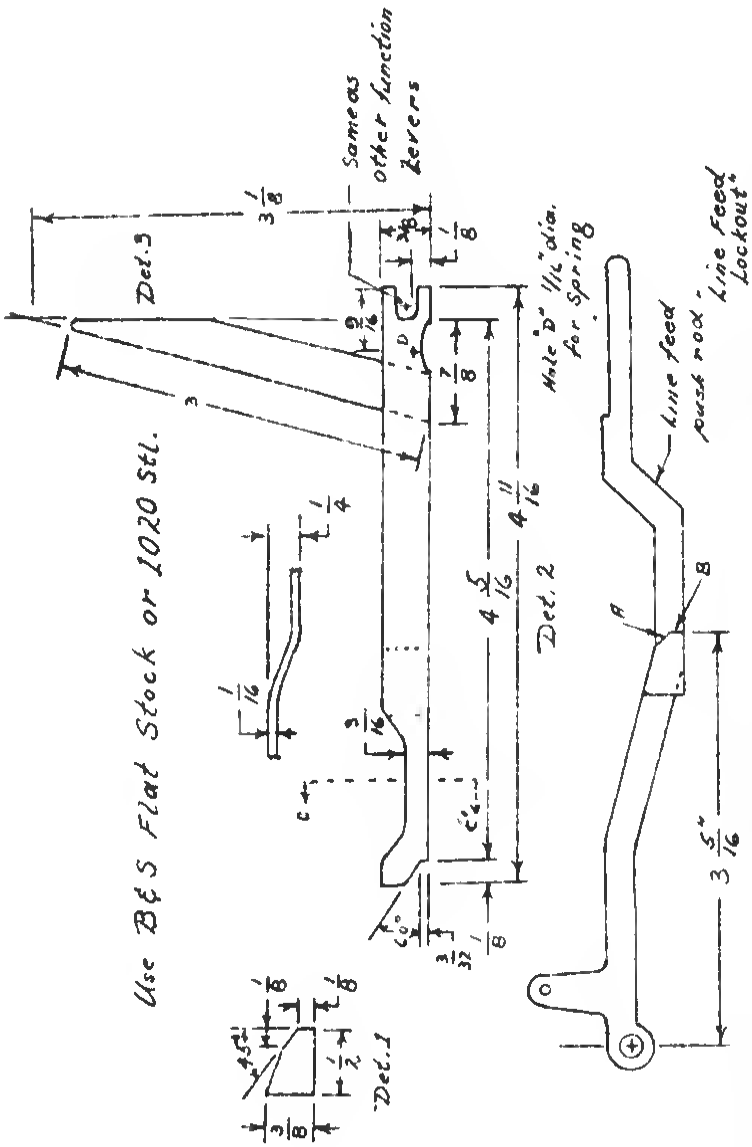
9 Replace the washer under the head of the screw at the lower left hand corner of the type basket with detail # 6

10 Adjust the screw on the right end of the slide to trip after the 72nd space

Bob W9IQS







STABLE RECEPTION OF CW, RTTY, AND SSB

Many amateurs cannot receive these emissions due to poorly constructed receivers or even receivers with no BFO

The reason for poor copy of these emissions is DRIFT This drift is caused by one of the following reasons

1 Receiver Hetrodyne Oscillator not stable.

2 Receiver IF strip amplifier drifts.

3 2nd oscillator (if dual conversion) not stable

4 Beat frequency oscillator drifts

5 Transmitting station's signal drifts

To receive these emissions, a stable AUDIO signal is a necessity This audio signal is a result of the hetrodyning of the received signal and that of a separate oscillator we call the Beat Frequency Oscillator This can take place in the receiver's Hetrodyn Oscillator, IF strip, or EXTERNAL TO THE RECEIVER

In the causes of drifting we can do little or nothing about No. 5, but items 1 thru 4 are in our own shack and are our responsibility.

Many articles urge the Ham to remodel his present receiver, but most do not want or have not the ability to do so, and in most cases would gain them little.

March 12, 1962

Dear Merrill

Hope this letter finds you and yours in the best of everything We have had a pretty bad winter here and about all we have gotten done was shoveling snow and putting on and taking off tire chains I know you haven't the slightest idea about what I am talking about, since you have been having fine weather there in California.

As you know we will be celebrating our 5th year at MARTS and will try and write you up something and send along a photo of the Board of Directors. From the looks of things right now, it looks like it will be the same as the ones we have this year. I don't know if I sent you a photo last year or not If I remember correctly, they didn't come out too well— so will see what happens this year.

Haven't been on any FSK this year at all Tried to get on this fall but the ole antenna wouldn't have any part of it. Getting back more than I was putting out (HUH?) and I was afraid I would blow up the transmitter

The simple answer to this is your FREQUENCY METER The FCC requires that you have a secondary frequency measuring source and it is assumed that you have one of some sort It is a STABLE, no drift RF source.

Tune your receiver to the desired signal without using your BFO Tune your Freq Meter to the incoming Signal to obtain the Beat Frequency you desire You are now in business Your receiver may drift several KC and you can still CW, RTTY or SSB If your receiver drifts too far, you will notice a change in volumn but the BEAT NOTE WILL NOT CHANGE. Why? Simply because your Freq Meter is beating against the transmitted signal outside of your receiver and has nothing to do with receiver circuitry This leaves only the transmitted signal and the Freq Meter to drift Many have received from MARS and others of us have bought a BC-221 With a little care in construction of power supply and operation you have a drift free signal source

Dig out that old AC-DC-TRF receiver and copy RTTY!!

Howard H Wolf
AAOEPT-KOEPT
415 E Elm St
Redwood Falls, Minn

Never did get around to fixing it, so now it will have to wait for warmer days- hi hi

Did accomplish something this winter tho- besides the writer cramps which I am sure you are well aware of I got on two meters FM Got a GE base station and it sure is sweet Had to do a lot of changing in the receiver before I could get it to work properly for AFSK

We have been fooling with narrow shift here Merrill- using 440 & 600 cycles These two frequencies were selected because they are available from WWV all the time So far has been working out all of. Wonder if we can prove they are better than 2125-2975 if RTTY will back us up? It will be a darn good deal in most respects because it will allow the 500 & 600 cycle filters to be used in most receivers We fear only one drawback- untested as yet- and that is the fact that we feel on some weak signals it will be easier for the CW boys to cause us more interference if they zero beat us I have never been able to see the 2550 as

center frequency, but have gone along with it because the rest of the fellows thought it was the thing to. It will be hard to "shift" them now but I feel we have advanced quite a ways and it is time to "take off" in a better direction. If you are interested will give you more details and work it out with you and your ideas.

Thanks for the Membership but I would not feel right by accepting the $5.00. For all you have done for our Society and RTTYers, it would be like "grave robbing" and we aren't at that stage yet. So welcome Merrill.

Well looks like I am about out of paper here, seems like when I get started with you, I never realize the ten minute break, so will close for now and let you know what happens at the next meeting.

Sincerely,

'Mac' — WOATM

Sec. Treas. M.A.R.T.S. Inc.

Dec. 27, 1961

RTTY INC.,
372 W. Warren Way,
Arcadia, Calif.

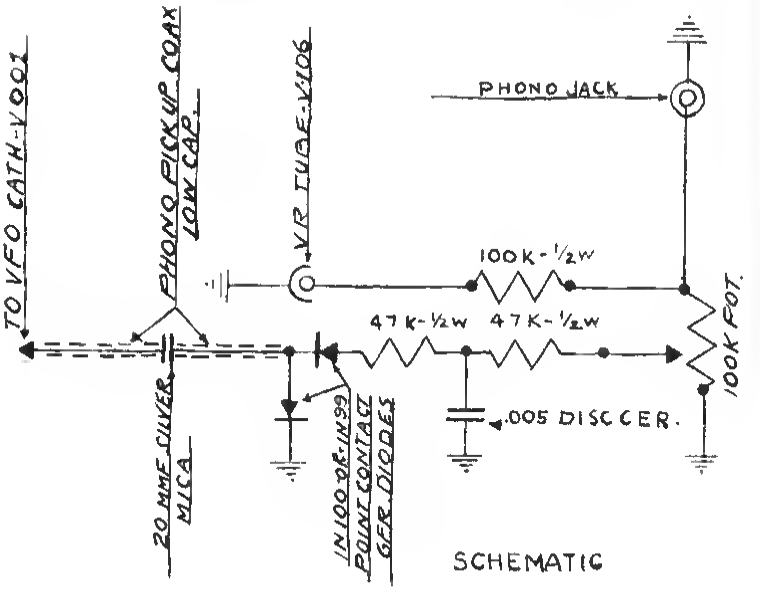
Dear Merrell,

Enclosed is a print of FSK application to my KWS-1 which you may find of interest. I got the circuit originally from W5ANW who I think wrote it up in RTTY magazine. However I didn't relish the installation as proposed as it would require the realignment of the KWS-1. The circuit was adopted as shown and was by W4EHU Don Wiggins.

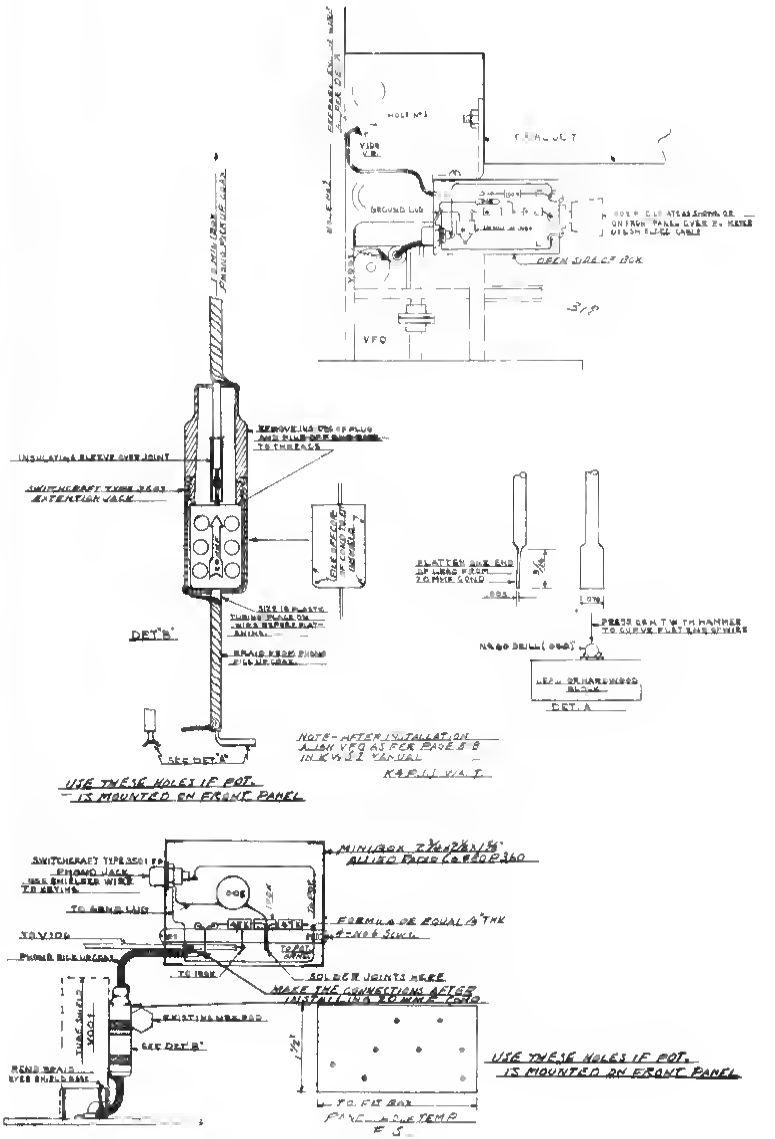
There are no holes to be drilled and the unit is in the circuit for all modes of xmission and the only adjustment is to the Dial as per instructions on page 5-8 paragraph 5.2.3.1, sections a thru m. Which covers the relocation of dial on shaft to compensate for the slight frequency change in the VFO.

You are free to use this data as you see fit bearing in mind that the circuitry is by others and the mechanics only by myself.

Very truly yours,
W. L. Rives K-4PJJ



SCHEMATIC


VFO
GROUND LUG
OPEN SPACE OF DIAL
USE THESE HOLES IF POT. IS MOUNTED ON FRONT PANEL
NOTE- AFTER INSTALLATION ALIGN VFO AS PER PAGE 5-8 IN K.W.S.1 MANUAL
K4PJJ VIA T
SWITCHCRAFT TYPE 3501 FP
PHONO JACK
TO GRID LUG
TO V106
SOLDER JOINTS HERE
MAKE THE CONNECTIONS AFTER INSTALLING 20 MMF COND.
EXISTING MTG. ROD
USE THESE HOLES IF POT. IS MOUNTED ON FRONT PANEL

DX-RTTY

BUD SCHULTZ, W6CG
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Howdy Gang

It's that time of the month again when we put aside the mundane chores of making a living and sit down to the dessert of assembling a DX summary from the goodies in our cookie jar. Every month I tell the Boss Editor —"it's impossible— there just isn't enough stuff for a column this month!" but by the time the deadline arrives this old desk is snowed under with letters, cards TTY copy and other propagatory media (how do you like that for fancy talk?)

The biggest waves on the DX pond this month were made by the return to the RTTY Wars of Bruno, I1RIF. If possible his signals were bigger and fatter than during his ether busting appearance during the DX Sweepstakes. Here on the West Coast I1RIF shows up with a ten DB over S-9 signal at OOOO GMT on 14 Mcs when other European signals are just audible. Bruno reported direct to this reporter (ahem!) that he has a new receiving and T U set-up that works very well. His only complaint is that the new gear has so many knobs and switches he still hasn't had a chance to familiarize himself with it. If you haven't printed I1RIF as yet it may be because you are tuning right past him — thinking he is a local! First time I caught him this month I was sure it was some close-by station reperfing his transmission. When I found it was actually Bruno in the flesh, it took me ten minutes to recover from the shock and turn the filaments on the rig. Then I called him for fifteen minutes with the plate voltage switch turned off!! After two tranquillizers and an assist from Ray, K8TJP, I finally made the grade.

Ed, K3GIF reports that he has arranged a sked between ZS6UR and OA4BN that should give Bill his WAC on FSK. Ed also tells of a fine contact with DL5IA. Hal, DL5IA, is a San Francisco boy and is currently operating from Munich with a model 15, 150 watts into a dipole, a W2PAT convorter into a SP600 receiver. He told Ed that there are quite a few RTTY Hams in the Munich area and that DJOEK helped him get started. Haven't had my usual monthly gossip report from G3CQE but the grapevine tells me he is still active and hasn't deserted FSK for SSB as suggested here in last month's column. Speaking of G3CQE— his RTTY column "RTTY Topics" in the current issue of Short Wave Magazine was especially interesting and contains a photo of the DX "Champ", WONFA, who took the marbles in the last RTTY-DX SS. Incidentally Chester, WONFA, is presently enjoying a vacation and was last heard from working DX from the other end of the string at VP7CD's shack in Bermuda.

Mel, W8UUS, tells me of a very interesting development from behind the "curtain". He received an excellent copy of one of his RTTY transmissions from an SWL in Prague. The chap apparently was using some good gear because Mel reports that the copy was very good. The SWL was very interested in learning what sort of TTY equipment was in use at W8UUS and Mel sent him a complete run-down in the hope of stirring up some activity in that part of the World. If anyone else gets any reports from the "curtain" areas I certainly would appreciate getting the news to report in these paragraphs. This has been the first "firm" breakthrough that I have received since this column was started. Mel also reported that he worked a new one in the UK signing G5IW. It was G5IW's first try at RTTY and apparently he is very much steamed up over FSK operation. Several have mentioned that G3BXI is back to the green keys again after a lay-off of a few weeks. Frank, OA4BN, is having difficulty reversing the FSK on his Central Electronics 100V. If anyone can help on this one I know Frank would appreciate it.

Gole, KR6MF, now has his KW final in operation and is really tearing big chunks out of the band at this listening post. KR6-MF is still the only consistent Asian RTTY station on the air and is in great demand by everyone needing this Continent for WAC-RTTY. We are still trying to encourage more of the Far East stations to try RTTY but its difficult to get the necessary components to them. Just be patient — there are a couple of real rare ones just about set to go over there. Once it starts — interest should build in a hurry just as it has in Europe and Africa.

DX was so good this past month that even the Boss Editor took time off from his mail chore to dabble a bit in the pile-ups. Merrill had a swell chat with Bill, ZS6UR, around 0500 GMT on twenty and tells me that Vk3KF, ZL1WB and ZL3HJ were all coming thru with fine signals about the same time. It would appear that the old twenty meter band was starting to thaw out a bit at night for a change.

A letter from W6DTN announces he is now 3rd officer (radio) on the S S. Monterey which runs between LA, Tahiti, Rarotonga, Auckland Sydney, Fiji, Samoa etc. He is carrying a model 26 down to VK2EG in Sydney who is all steamed up and is read to go when he gets the printer. Thorny is also carrying a converter to K6CQV/KS6 in Pago Pago who has the rest of the necessary gear and an S line set-up ready to go. All this is very good news and should really bolster up the SPRATS group. W6-DTN also hopes to look up Bill, ZK1BS, while in Rarotonga.

KP4GN is a new one who is going strong now from Puerto Rico. His handle is John and he is running a KWS-1, 51-J4 and a homebrew converter. Hope to have some photos of his layout by next month. He tells us that KP4AES is also active from the island.

Heard from Dick at W4BOG that Bob Adams, KH6EEM, is now KB6CL on Baker Island and that he expects to be on RTTY as soon as his gear arrives. Bob is attached to the Mercury Project and has some fine gear in transit to the Island. George, KZ-5GA, is now in full operation from Gurundu in the Canal Zone and is looking forward to keeping things active from down that way. George puts in a swell signal with a Gonset G-76 on Fifteen and twenty.

Well, as usual I'm only about half way thru the stack and I'm running out of space so if you don't see your report in here this month please excuse it. Any DX news you may pick up along the way is always very acceptable so please don't be bashful or modest about your DX contacts. I won't guarantee to answer all your letters but I'll sure be glad to try and put the info down so the others can drool a bit. My QTH is at the top of the column— Nuff said?

After my off-beat signature line last month the Boss threatened to cut me off at the pockets and throw my body to the wolves so this time I'll just wind things up by ayng CUL 73.

Bud W6GG